

Appl. No.: 10/802,693
Amdt. Dated: 12/26/2007
Off. Act. Dated: 04/26/2006

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-86 (canceled)

87. (currently amended): A compression conveyor auger assembly, for transporting and compressing waxed corrugated cardboard segments, comprising:

[[a]] a housing, said housing including an inlet end and an outlet end, wherein said outlet end is tapered;

[[b]] an opening on said housing, said opening disposed adjacent said inlet end of said housing; [[and]]

[[c]] a compression conveyor screw rotatably disposed within said housing, said compression conveyor screw including a helical blade extending between said inlet end and said outlet end of said housing, said helical blade including a plurality of flights;

wherein said helical blade includes a pusher side and a rear side; and
weld buildups on said pusher side and said rear side of said helical blade;
wherein length and height of all said weld buildups vary with positioning of said blade relative to said outlet end of said housing;

wherein each flight is divided into a plurality of stations;
wherein said compression conveyor screw, from one end of said housing to the other, exhibits a uniform amount of change in angular displacement from a station to an adjacent station; and

wherein said housing and said compression conveyor screw are configured to orient and align the cardboard segments in a circumferentially-disposed manner about a

periphery of said compression conveyer screw and to move said cardboard segments forward while said cardboard segments are being disposed horizontally.

88. (original): An apparatus as recited in claim 87, wherein the diameter of said helical blade decreases towards said outlet end of said housing, and wherein said flights decrease in length toward said outlet end of said housing.

89. (original): An apparatus as recited in claim 88, further comprising a log die attached to said outlet end of said housing.

90. (original): An apparatus as recited in claim 89, wherein said log die includes at least one internal longitudinal groove therein.

91. (original): An apparatus as recited in claim 87, wherein said housing includes a circular passageway having rifling.

92. (original) An apparatus as recited in claim 87, wherein the cardboard segments being transported therethrough are compressed to a ratio between approximately 5:1 and approximately 8:1.

93. (original): An apparatus as recited in claim 87, further comprising means for rotating said compression conveyor screw.

94. (original): An apparatus as recited in claim 93, wherein said conveyor screw rotating means comprises a spur gear.

95. (original): An apparatus as recited in claim 87, further including means for segmenting the composite firelog extrusion into individual log sections.

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96. (original): An apparatus as recited in claim 87, wherein said helical blade includes a diameter that decreases towards said outlet end of said housing.

97. (original): An apparatus as recited in claim 96, wherein said flights of said helical blade decrease in length toward said outlet end of said housing.